SERVICE BULLETIN

MERCRUISER STERN DRIVES and ENGINES

NUMBER: 76-3
DATE : 9/24/75

CIRCULATE TO:	SERVICE MGR.	PARTS MGR.	MECHANICS	Place in Your "Service Bulletins" Binder

A. Hinge Pin Retaining Pin Replacement - MerCruiser 110-thru-233
B. Trim Cylinder Rupturing - MerCruiser 120-thru-233
C. Gimbal Bearing B-30-60794A2
D. Shift Delay on II-TR Models
E. Model II-TR Transmission Pump Failures
F. Crankcase Oil Overfilling "Caution"
G. Oil Break-In Recommendations - MerCruiser Engines

A. HINGE PIN RETAINING PIN REPLACEMENT

(Attach Bulletin Reference Sticker to P. 9A-26 of Your Service Manual.)

During normal servicing of MerCruiser I type units (MerCruiser 110-thru-233), inspect the hinge pin retaining pins (B-17-35571) for signs of damage. If questionable, replace the retaining pins.

These pins can be broken or damaged if the drive unit is trimmed out past the trim limit position and operated above idle speeds. This could result in loss of the hinge pins and subsequent damage to the unit.

Caution your customers about operating at extreme trim angles. Refer them to their "Operation and Maintenance Manual" for proper operating instructions.

B. TRIM CYLINDER RUPTURING - MERCRUISER 120-THRU-233

(Attach Bulletin Reference Sticker to P. 10-56 of Your Service Manual.)

Some Power Trim cylinder rupturing has been reported on MerCruiser 120-thru-233 drive units. To prevent this problem -

1. Be sure that trim motor is not operated until shift cables and reverse lock valves have been adjusted. See Installation Section in Service Manual, and
2. Shift unit into reverse gear (turn propeller shaft to ensure full clutch engagement). Press the "UP" button on trim panel. Trim motor should NOT run. If motor does run,
   a. Recheck reverse lock valve adjustment.
   b. Check for possible shorted or misadjusted reverse cutout switch.

C. GIMBAL BEARING B-30-60794A2

(Attach Bulletin Reference Sticker to P. 6A-22 of Your Service Manual.)

When installing Gimbal Bearing (B-30-60794A2), it is not necessary to reinstall snap ring. The tolerance ring around the bearing race is sufficient to hold the bearing in the housing.

When the new Gimbal Bearing Assembly (B-30-60794A2) is used to replace the old-style gimbal bearing (B-30-36418), it is not necessary to reinstall the snap ring.

D. SHIFT DELAY ON II-TR MODELS

(Attach Bulletin Reference Sticker to P. 7C-16 of Your Service Manual.)

Some customers have questioned the slight delay between operation of the shifting control and engagement of the II-TR transmission. The delay is caused by:

1. The period of time it requires for the electric shift motor to position the transmission control valve, and
2. The period of time required for the transmission to build up pressure on the clutch pack or reverse band. This small time delay is normal.

(OVER)

E. MODEL II-TR TRANSMISSION PUMP FAILURES

(Attach Bulletin Reference Sticker to P. 6E-1 of Your Service Manual.)

Model II-TR transmission pump failures (gerotor breakage) have occurred because of gerotor pump clearances and are indicated by a loss of hydraulic pressure. If this occurs, the transmission should be disassembled and cleaned, inspected and a new gerotor (B-62662) installed. A Sealing Kit (B-63222A1) also will be required.

F. CRANKCASE OIL OVERFILLING CAUTION

(Attach Bulletin Reference Sticker to P. 1C-3 of Your Service Manual.)

Overfilling of the crankcase can result in loss of horsepower and malfunction of hydraulic lifters. Be sure that boat is as level as possible when checking crankcase oil level.

G. OIL BREAK-IN RECOMMENDATIONS - MERCRUISER ENGINES

(Attach Bulletin Reference Sticker to P. 1C-2 of Your Service Manual.)

It is important that only an SAE 20W "SE" oil, along with one pint of Engine Oil Supplement (C-92-63283), is used during the break-in period on MerCruiser engines. Failure to follow this recommendation can result in piston rings not seating properly and can cause increased oil consumption and reduced horsepower.

After the 20-hour break-in period, follow recommendations listed below:

AFTER 20-HOUR BREAK-IN PERIOD

Prevailing Daytime Temperature during Interval That Oil Will Remain in Crankcase	Viscosity and API Classification	Oil and Oil Filter Change Intervals
0° (-18°C) to 32°F (0°C)	SAE 20W "SE"	50 Hours of Operation or 30 Days, Whichever Occurs First
32°F (0°C) to 90°F (32°C)	SAE 30 "SE"	100 Hours of Operation or 60 Days, Whichever Occurs First
90°F (32°C) and Above	SAE 40 "SE"	